

This species is likely to be confused with *Myzus lilii* Mason* from which it may be distinguished by the green color, fewer sensoria on segment III of the alates, presence of sensoria on III of the apteræ, the swollen cornicles, and the absence of apical reticulations on the cornicles.

Myzus lilii Mason appears to be very close to if not synonymous with *Macrosiphum scoliopi* Essig which occurs on liliaceous plants in California and which might readily be included in the genus *Myzus*.

These descriptions were made from a series of sixty-three apterous and seven winged viviparous females mounted on twenty slides, two of which are in Belese medium. A single winged specimen is designated as the type and all others are indicated as paratypes. Paratypes have been deposited in the collections of the U. S. Bureau of Entomology and Plant Quarantine, Washington, D. C.

* Mason, P. W., 1940. A revision of the North American aphids of the genus *Myzus*. U. S. Dept. Agr. Misc. Pub. No. 371:1-30.

NEW CHILOPODS FROM MEXICO

BY RALPH V. CHAMBERLIN

University of Utah, Salt Lake City

The six new species herein described are based upon material collected on the "Third Hoogstraal Mexican Biological Expedition" which was carried out during June and July of 1940. The specimens were collected by Harry Hoogstraal, leader of the expedition, and Kenneth Knight. All material is retained at the University of Utah.

SCOLOPENDRIDA

Scolopendra michoacana Chamberlin, new species

A relatively small form which is olive in color throughout, including antennæ and legs.

Head smooth, without sulci, freely overlapping the first dorsal plate. *Antennæ* composed of sixteen articles of which the first five are glabrous or nearly so. *Prosternum* smooth, the dental plates set off by sulci that meet at middle in a very obtuse angle; teeth distinct, 4—4, with the two innermost on each side fused except at distal end; basal process of femuroid of prehensors large, without

teeth. *First dorsal plate* smooth, without transverse sulcus or paired longitudinal sulci. Paired sulci rather indistinct on second dorsal plate, distinct on third and following plates. Lateral margination weak on eighteenth plate, distinct on nineteenth, twentieth, and twenty-first. Last dorsal plate without trace of median sulcus. *Last ventral plate* narrowed caudad, the caudal corners rounded, the caudal margin straight; without sulci. *Caudal process* of coxopleuræ of anal legs moderately short, bearing four spines distally; a spine on caudal margin of coxopleura; pores very fine and numerous. First to nineteenth *legs* with a single, ventral tarsal spine, twentieth and twenty-first without tarsal spines. Third joint of nineteenth and twentieth legs unarmed ventrally or dorsally. *Anal legs* with fourth joint strongly flattened dorso-ventrally; the fifth joint flattened proximally but becoming cylindrical at distal end; the third joint flattened above and over distal portion beneath. Third joint of anal legs at distal end above with a conspicuous process bearing two distal spines; with five spines on mesal surface arranged 1-2-1; three ventral spines in line at mesal edge and seven toward outer side arranged approximately 1-1-2-1-2-1. Other joints unspined. Claw with two spines at base. Length, about 64 mm.

Locality. Michoacan: Tancitaro. Two specimens taken by Hoogstraal, July 20, 1940, at an elevation of 6500 feet under rock in moist woods.

Of specimens known from Mexico, apparently nearest to *S. morisitans*, but readily distinguished from that species in lacking a median sulcus on the last dorsal plate, smaller number of antennal articles, characteristic color, etc.

GEOPHILIDA

Genus *Nuevona* Chamberlin, new genus

A sagonid genus in which the first maxillæ have pale, slender, membranous lappets. Prosternum with chitinous lines fine or obscure, unarmed; prehensors unarmed. Last sternite broad; coxopleural pores small, typically four or five on each side, these covered by border of the sternite. Anal legs ending in a claw.

Genotype: *Nuevona leonensis* Chamberlin, new species.

Distinguished from all other genera referred to in the *Sogonidæ* except *Garrina*, another Mexican genus, in having the anal legs armed with claws. From *Garrina* it is readily distinguished in having several independently opening coxopleural pores on each side instead of two large pits.

Nuevona leonensis Chamberlin, new species

Head small, longer than wide; widest at about beginning of posterior third and then narrowing caudad and more conspicuously forward. Head overlapping basal plate. Prehensors covered by head; joints all unarmed. *Prosternum* unarmed; chitinous lines weak. *Ventral pores* in a conspicuous band across caudal border, this band widest at middle and angularly extended forward at this point. *Last ventral plate* wider than penult, sides and posterior margin together forming a semi-circle with posterior portion somewhat flattened. Pores four or five in number, covered, or mostly so, by the border of the ventral plate. *Anal legs* with proximal joints moderately thickened in the male; claw well developed. Pairs of legs, sixty-one. Length, 21 mm.

Locality. Mexico: State of Nuevo Leon, Villa Santiago (Hacienda Vista Hermosa). One male taken by Hoogstraal and Knight in decaying wood, June 16, 1940, at an elevation of 1500 feet.

Polycricus nuevus Chamberlin, new species

Pale yellow. *Antennæ* of medium length; proximally filiform, distally slightly attenuated; ultimate article nearly as long as the two preceding together. *Head* with cephalic plate longer than broad, widest toward anterior end; anterior corners rounded, the posterior oblique; the sides between corners nearly straight, slightly converging caudad. No frontal suture evident. Two well defined, pale, clypeal areas. Second maxillæ with coxal plates rather broadly joined, the median area less sclerotized; pores large, open on inner side, the mesal border being membranous or less sclerotized; no chitinous lines. *Spiracles* circular, the first decidedly largest, the second intermediate. *Ventral plates* without apparent pores. Last ventral plate narrow, the sides strongly converging caudad; coxopleural pores over entire surface, fine and very numerous. *Anal legs* without claw, the last joint long and slender, the penult joint of intermediate thickness, the more proximal joints thickest. Pairs of legs, 61. Length, about 30 mm.

Locality. Mexico: State of Nuevo Leon, Villa Santiago (Hacienda Vista Hermosa—Horsetail Falls). One specimen taken in decaying stump by Hoogstraal and Knight, June 16, 1940, at an elevation of 1500 feet.

This specimen is assumed to be congeneric with *P. toltecus* (Humbert and Saussure), the holotype of which was originally described from the "Eastern Cordillera and Chizoba." Thus *Polycricus* would seem to be very close to *Pachymerium*. The present species seems to differ from *toltecus* in lacking a frontal suture on the head, and in the more strongly narrowed last ventral plate.

LITHOBIDA

Labrobium major Chamberlin, new species

General color brown. *Head* with marginal lateral breaks slight. *Antennæ* of moderate length, composed of about forty-nine articles. Eyes small, composed of about fourteen ocelli arranged thus: 1, 1, 3, 3, 3; the single ocellus and that at top of patch large, those of bottom row much smallest. Prosternal teeth 2—2 as usual. Posterior angles of seventh, ninth, eleventh, and thirteenth dorsal plates produced, the produced angles broad across base with mesal side long, oblique and convex. *Ventral spines* of first legs 0, 0, 1, 1(2), 1; of the second, 0, 0, 1, 2, 1; of the third, 0, 0, 2, 2, 1. Dorsal spines of first legs 0, 0, 1, 1, 1; of the second, 0, 0, 2, 2, 1; of the third, 0, 0, 2, 2, 2. Posterior legs lost from types; no spines present on their coxæ. *Coxal pores* large and circular; 5, 4, 4, 4. Length, 24 mm.

Locality. Mexico: State of Nuevo Leon, Villa Santiago (Hacienda Vista Hermosa—Horsetail Falls). Two males taken June 16, 1940, by Hoogstraal and Knight in decaying wood in the "Mesic temperate forest" at an elevation of 1500 feet.

Agreeing with *L. minor*, the genotype, in processes of seventh, ninth, eleventh and 13th dorsal plates, but readily distinguished by its much larger size—24 mm. as against 13 mm., difference in spining of anterior legs, and smaller eyes.

Mexicobius vistanus Chamberlin, new species

Light brownish yellow, with head and posterior end of somewhat orange tinge. Legs yellow. *Antennæ* short, composed in types of twenty-five to twenty-seven short articles. Ocelli 1, 1, 3, 2, those of bottom series much reduced, all pale. *Prosternal teeth* small and widely spaced, 2—2, the median sinus shallow and semi-circular; lines of bases of teeth meeting at an obtuse reentrant angle. *Coxal pores* small, round, 3, 3, 4, 3. *Ventral spines* of first legs, 0, 0, 0, 0, 1. *Ventral spines* of penult legs, 0, 0, 1, 3, 3, 2; dorsal, 0, 0, 3, 2, 1; the claw double. *Ventral spines* of anal legs, 0, 1, 3, 2, 1; dorsal, 0(1), 0, 3, 1, 0; the claw double. Posterior coxæ unarmed. *Anal legs* of male long and slender. *Length* of male holotype about 11 mm.

Locality. Mexico: State of Nuevo Leon, Villa Santiago (Hacienda Vista Hermosa—Horsetail Falls). Male holotype and a younger male taken June 16, 1940, by Hoogstraal and Knight in the "Mesic temperate forest" at an elevation of 1500 feet.

Readily distinguished from *M. hidalgoensis*, the genotype, in having the posterior coxæ unarmed, in the spining of the legs, and in the much fewer ocelli.

Genus *Nuevobius* Chamberlin, new genus

Head with distinct lateral marginal interruptions. *Antennæ* very long and composed of numerous articles. Eye-patch composed of numerous seriate ocelli. Prosternal teeth typically 6—6, the special marginal seta ectad of the series on each side. Posterior corners of eleventh and thirteenth dorsal plates well produced, those of the ninth plate scarcely produced. Coxal pits strongly transverse. In the male the anal legs slender throughout, no joint specially thickened but the fourth longitudinally sulcate above.

Genotype. *Nuevobius cavicolens* Chamberlin, new species.

It is with some hesitation that this form is separated generically from *Sozibius*, a genus known from three species occurring in the mountains of Tennessee, North Carolina, and Virginia. It differs, however, in having the posterior angles of the eleventh and thirteenth dorsal plates definitely produced, in the very long antennæ, and the relatively longer legs of which the last pair is especially long and slender. In the latter, the fourth joint in the male is not thickened as in the species of *Sozibius*, but is long and slender. The strongly transverse pores are also characteristic in comparison with the species of *Sozibius*.

Nuevobius cavicolens Chamberlin, new species

Color amber yellow, the legs somewhat lighter than the body. *Antennæ* very long, reaching beyond middle of body, composed of forty-six articles. *Ocelli* numerous; in an elliptic patch in six longitudinal series; single ocellus much largest, contiguous. *Head* with marginal interruptions. Prosternal teeth 6—6; the special seta ectad of series on each side. Posterior angles of nineteenth and thirteenth dorsal plates distinctly produced, those of eleventh slightly produced. *Coxal pores* transversely elongate, pits, some of which seem to have smaller pores, opening into them; 6, 6, 7, 5 arrangement. *Ventral spines* of last legs 0, 1, 3, 3, 2; dorsal, 1, 0, 3, 1, 0; claw unarmed. *Ventral spines* of penult legs, 0, 1, 3, 3, 2; of dorsal, 1, 0, 3, 1, 1; claw unarmed. *Ventral spines* of first legs 0, 0, 2, 2, 1. Last four pairs of coxæ dorsally armed, last three pairs also laterally. *Anal legs* of male very long, all joints slender, the fourth widely longitudinally furrowed above. Length, about 15 mm.

Locality. Mexico: State of Nuevo Leon, Villa Santiago (Hacienda Vista Hermosa—Horsetail Falls). One male taken June 16, 1940, by Hoogstraal "in dung of bat cave, one-quarter mile from entrance." "Mesic temperate forest," elevation 1500 feet.